UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,127	11/14/2001	Ethan George Russell	APPL0002	5209

25268 7590 08/08/2007

LAW OFFICES OF RONALD M ANDERSON
600 108TH AVE, NE
SUITE 507
BELLEVUE, WA 98004

EXAMINER	
STRANGE, AARON N	

ART UNIT	PAPER NUMBER
2153	

MAIL DATE	DELIVERY MODE
08/08/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/991,127	RUSSELL ET AL.	
	Examiner	Art Unit	
	Aaron Strange	2153	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) *1-56* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-56* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 5/31/07 have been fully considered but they are not persuasive.

2. There appears to be a fundamental misunderstanding regarding the teachings of Bryant. Admittedly, Bryant can be somewhat difficult to follow, particularly where interpretation of the reference requires close examination of JavaScript source code. In the following discussion, the Examiner has attempted to more clearly explain the Bryant reference and how it works, so that Applicant will better understand the position of the Office and be able to identify issues for appeal.

3. The method of claim 1 relates to determining one or more performance metrics for a distributed application, and determines those metrics by appending machine instructions that define a performance monitoring function to distributed application data that was requested by a user. The appended machine instructions are executed at the client to implement the performance monitoring function used to determine the performance metrics. The remaining independent claims are systems or methods for doing substantially identical tasks.

The primary point of contention between the Examiner and Applicant is whether the machine instructions appended to the requested data actually control how to determine the performance metrics (Remarks, 19). Applicant acknowledges that Bryant

teaches machine instructions that actually specify how to determine the performance metric (Remarks, 20), but asserts that they are not submitted to the client as part of the Web page. The Examiner respectfully disagrees, as will be elaborated upon below.

4. Bryant discloses a method for determining a performance metric, specifically, a response time for an HTTP request (col. 5, ll. 22-26). The first step in this process is to transmit a request from a client to a server (col. 7, ll. 61-63). When the request is sent, it is accompanied by the client system clock time (col. 8, ll. 23-29). Second, the server responds to the client with the requested data (col. 9, ll. 66 to col. 9, ll. 2). Additionally, the server appends (col. 8, ll. 30-55) machine instructions that define a performance monitoring function to the requested data ("as part of the page") (col. 9, ll. 2). These machine instructions are executed at the client to implement the performance monitoring function (the instructions are executed by the client and calculate the response time) (col. 9, ll. 16-18).

5. Regarding Applicant's assertion that the machine instructions disclosed at col. 9, ll. 5-15, "do NOT actually control how to determine the one or more performance metrics (i.e., time required to service this request) as recited in step (d)" (Remarks, 19), the Examiner respectfully disagrees. These instructions are submitted to the client as part of the page (distributed application data) (col. 9, ll. 1-2) and control how the performance metric is calculated. In particular the statement "document.cookie = "NETSCAPE_LIVEWIRE.last_rsp_time + (new Date()).getTime() – 987666532"" is the

statement which, when executed by the client, calculates the response time and stores it in a cookie. In the interest of clarity, there is a typographical error in the above quoted line, which should read "document.cookie = "NETSCAPE_LIVEWIRE.last_rsp_time=" + (new Date()).getTime() – 987666532". Bryant clearly discloses that the close quotation mark was inserted by the server into the page (col. 8, ll. 40-45).

Specifically, the "new Date().getTime()" function will get the current system time of the client machine (col. 8, ll. 14-16). The value "987666532" represents the time the request was sent (col. 8, ll. 14-16; col 8, ll. 66 to col. 9, ll. 2). Therefore, the response time is calculated simply by subtracting the current time from the time the request was sent (new Date()).getTime() – 987666532). This value is stored in the cookie using the document.cookie assignment operation, along with the textual identifier of the value (NETSCAPE_LIVEWIRE.last_rsp_time).

Therefore, since these instructions are submitted to the client, appended to the requested page, and executed at the client to determine the performance monitoring function, Bryant meets the limitations of all independent claims.

6. It is also instructive to look at Table 2 in the specification of the present application, which substantially corresponds to Fig. 5 and col. 6, ll. 9 to col. 7, ll. 4 of Bryant. Both the present application (Table 2, Time t0) and Bryant (col. 6, ll. 21-25) record an initial timestamp and send a request to the server. The server responds with the requested data and the browser monitor (present application, Table 2, Time t3; Bryant, col. 6, ll. 46-49). The browser then calculates the response time (present

application, Table 2, Time t7/t8, "FetchLatency"; Bryant, col. 6, ll. 49-50). The response time is then sent to the server asynchronously (present application, Table 2, Time t8; Bryant, col. 7, ll. 1-4).

7. With regard to Applicant's additional argument that "the machine instructions that control how the client determines the metric are already executing on the client before the Web page arrives" (Remarks, 20), the Examiner respectfully disagrees. To the contrary, Bryant clearly discloses that the machine instructions used to determine the performance metric are "submitted to the client as part of the page" (col. 9, ll. 1-2).

8. Applicant additionally argues that the machine instructions must already be executing on the client in order to record the click time to be recorded (Remarks, 20-21). While the Examiner agrees that *some* instructions are executing on the computer, they are not the instructions used to determine the performance metric. The instructions executing on the client at the time of the request are used only to capture the time of the initial request. This is **exactly** the same way Applicant's disclosed invention operates (Table 2, Time t0). After recording the time of the original request, the server responds with the requested data and appended machine instructions. The appended instructions are then executed to calculate the response time (Table 2, Time t7/t8), using the time recorded when the request was made.

9. While the Examiner has made a sincere effort to clearly explain the position of the Office, Appellant is invited to contact the Examiner to seek clarification of any of the above statements or the rejection set forth below.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-4,6,7,10-16,18,19,21-24,26,29,31-36,38,40-45,47,50,52 and 53 are rejected under 35 U.S.C. 102(e) as being anticipated by Bryant et al. (US 6,078,956).

12. Reference should be made to the "Response to Arguments" section for additional explanation and clarification of the rejections presented below.

13. With regard to claim 1, Bryant discloses a method for determining one or more performance metrics for a distributed application in which distributed application data are transferred from a first site (server) to a second site (client) over a network, comprising the steps of:

(a) enabling a user to transmit a request for the distributed application data desired by the user, said request being transmitted from the second site to the first site over the network (user clicks link to submit request)(at least Col 7, Line 61 to Col 8, Line 13);

(b) in response to the request, transmitting the distributed application data from the first site to the second site over the network, if the distributed application data are not already accessible at the second site (link is followed) (at least Col 8, Lines 16-17);

(c) appending machine instructions that define a performance monitoring function to the distributed application data that were requested and transmitted over the network to the second site as one data file (code is submitted as part of the page)(at least Col 8, Line 66 to Col 9, Line 15); and

(d) executing the machine instructions at the second site(received script is run), to implement the performance monitoring function used to determine the one or more performance metrics (time required to service request) (at least Col 9, Lines 5-18) for the distributed application without using the performance monitoring function to request any distributed application data from any site (no requests are made in code), at least one performance metric being determined in connection with timing of events occurring during the transmission of the distributed application data to the second site (the time to download the page containing the distributed application data) (at least Col 9, Lines 5-18).

14. With regard to claim 2, Bryant further discloses that the performance monitoring function at the second site is initiated after the distributed application data are accessed at the second site (performance monitoring function is received appended to the distributed application data)(at least Col 9, Lines 5-18).

15. With regard to claim 3, Bryant further discloses the step of collecting the one or more performance metrics for the distributed application over the network (at least Col 9, Lines 19-28).

16. With regard to claim 4, Bryant further discloses applying a probabilistic sampling parameter to determine whether performance metrics are collected from each of a plurality of sites (at least Col 6, Lines 41-46).

17. With regard to claim 6, Bryant further discloses that the probabilistic sampling parameter is applied on a per-request basis (individual request times are sampled) (at least Col 6, Lines 31-46).

18. With regard to claim 7, Bryant further discloses that the performance monitoring function at the second site determines at least: (a) a fetch latency, corresponding to a time period required to fetch the distributed application data (at least Col 9, Lines 5-18).

19. With regard to claim 10, Bryant further discloses the distributed application data have a markup language format (web pages) (at least Col 8, Line 61 to Col 9, Line 13).

20. With regard to claim 11, Bryant further discloses

determining a performance metric at the first site; and

combining the performance metric determined at the second site with a performance metric determined at the first site to determine a correlated performance metric (at least Col 4, Line 65 to Col 5, Line 21 and Col 8, Lines 20-25).

21. With regard to claim 12, Bryant further discloses that said one or more performance metrics is determined without any apparent effect on the access of the distributed application data at the second site (metrics are determined after page is retrieved) (at least Col 9, Line 15-28).

22. With regard to claim 14, Bryant discloses a system for determining one or more performance metrics for a distributed application in which distributed application data are transferred from a first site to a second site over a network, comprising:

(a) a memory;

(b) a display;

(c) a network interface (a-c are part of client machine); and

(d) a processing device that is coupled to the memory, the display, and the network interface, said network interface being adapted to enable communication over

the network, wherein at the second site, the processing device causes a request for the distributed application data to be transmitted over the network through the network interface to the first site (user clicks link to submit request)(at least Col 7, Line 61 to Col 8, Line 13), said processing device at the first site responding by transmitting the distributed application data appended with machine instructions as one data file that cause the processing device at the second site to perform a performance monitoring function defined by the appended machine instructions such that when executed by said processing device as the distributed application data are accessed at the second site (code is submitted as part of the page)(at least Col 8, Line 66 to Col 9, Line 15), said performance monitoring function determining said at least one performance metric (fetch latency) and being implemented without requiring any affirmative action by a user of the processing device and without using the performance monitoring function to request any distributed application data from any other site (metrics are automatically determined after page is retrieved and no requests are made) (at least Col 9, Line 15-28).

23. With regard to claim 15, Bryant further discloses that the machine instructions cause the processing device at the second site to transmit said at least one performance metric over the network to a data center serving as a collection site for performance metrics, said data center comprising one of the first site and a separate site that is tasked with collecting the performance metrics (at least Col 9, Lines 19-28).

24. With regard to claim 21, Bryant discloses a method for determining and collecting at least one performance metric related to access of a Web page by a browser program on a client device, including at least one of a compound performance metric and a correlated performance for a network, comprising the steps of:

(a) enabling a user to request transfer of the Web page from a server device to the client device over a network (user clicks link to submit request)(at least Col 7, Line 61 to Col 8, Line 13);

(b) appending machine instructions to the Web page so that the Web page and machine instructions are transferred to the client device as one data file (code is submitted as part of the page)(at least Col 8, Line 66 to Col 9, Line 15);

(c) when the Web page is loaded by the client device for rendering by the browser program, causing the client device to execute the machine instructions that define how to carry out the browser monitoring function, said browser monitoring function being implemented without requiring any affirmative action by a user of the client device (metrics are automatically determined after page is retrieved) (at least Col 9, Line 15-28);

(d) determining said at least one performance metric on the client device with the browser monitoring function without using the browser monitoring function to request any Web page from any site, at least one performance metric being determined in connection with timing of events occurring during transmission of the distributed application data to the client device (at least Col 9, Line 15-28); and

(e) if a correlated performance metric is to be determined:

(i) determining a server performance metric; and

(ii) combining the server performance metric with said at least one performance metric to determine the correlated performance metric (Internet Delay is combination of SERVER_PROCESSING_DELAY and response time)(at least Col 5, Lines 7-26). Additionally, it should be noted that step (e) is an optional step, only required when a correlated performance metric is to be determined.

25. With regard to claim 31, Bryant further discloses that said at least one performance metric comprises a performance metric for each image included in the web page (response time of all gif's received)(at least Col 7, Lines 35-46 and Col 2, Lines 55-60).

26. With regard to claim 32, Bryant further discloses

including a monitor cookie with the web page that is transferred to the client device from the server device which indicates that the Web page is a monitored document;

detecting the monitor cookie when the Web page is transferred to the client device; and

causing the browser function to determine that said at least one performance metric is to be determined for the Web page in response to the monitor cookie being detected (at least Col 8, Lines 1-21).

27. Claim 13 is rejected under the same rationale as claim 1, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

28. Claims 16,24 and 45 are rejected under the same rationale as claim 4, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

29. Claims 18,26 and 47 are rejected under the same rationale as claim 6, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

30. Claims 19,29,38 and 50 are rejected under the same rationale as claim 7, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

31. Claims 22 and 43 are rejected under the same rationale as claim 3, since they recite substantially identical subject matter. Any differences between the claims do not

result in patentably distinct claims and all of the limitations are taught by the above cited art.

32. Claims 23,33,34,36 and 44 are rejected under the same rationale as claim 11, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

33. Claim 35 is rejected under the same rationale as claim 21, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

34. Claims 40 and 52 are rejected under the same rationale as claim 31, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

35. Claims 41 and 53 are rejected under the same rationale as claim 32, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

36. Claim 42 is rejected under the same rationale as claim 14, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught b the above cited art.

Claim Rejections - 35 USC § 103

37. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

38. Claims 5,8,17,25,27,28,37,46,48,49,54 and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bryant et al. (US 6,411,998) in view of Bland et al. (US 5,732,218).

39. With regard to claims 5,17,25, and 46, while the system disclosed by Bryant shows substantial features of the claimed invention (discussed above), it fails to disclose that the probabilistic sampling parameter is applied on a per-session/user basis.

Bland teaches a method of collecting data about client sessions wherein data about request delays is collected for an entire session prior to sending it to the server (Col 3, Lines 19-23). Applying the probabilistic sampling parameter on a per-session

basis and collecting data for entire sessions allows information about the clients entire experience to be determined based on how the delays changed throughout the session.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the probabilistic sampling parameter on a per-session basis and collect data for entire sessions. This allows delay data to be analyzed to determine changes in the metrics over the duration of client sessions.

40. With regard to claims 8,27, and 48, while the system disclosed by Bryant shows substantial features of the claimed invention (discussed above), it fails to disclose that a plurality of different performance metrics can be determined by the browser monitoring function, and determining whether to collect a performance metric as a based on a specific kind of performance metric that was determined.

Bland discloses a method of collecting data about client requests to a Web Server, wherein clients can collect a plurality of different performance metrics (Col 4, Lines 9-59). Bland teaches that the clients only collect data that is pertinent to a server in response to a request from that server (Col 4, Line 64 to Col 5, Line 16). This would have been an advantageous addition to the system disclosed by Bryant since it would have reduced the amount of data that the clients must collect and transmit to the servers, reducing the load on the clients and servers.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to collect specific performance metrics as needed by the

server. This reduces the amount of data that must be collected and transmitted, reducing the load on the clients and servers.

41. With regard to claims 28, 37, and 49, while the system disclosed by Bryant shows substantial features of the claimed invention (discussed above), it fails to specifically disclose that the step of determining said at least one performance metric is done without the client device providing any indication to the user of the client device that said at least one performance metric is being determined.

Bland discloses a similar system of collecting data about client transactions with a Web server. Bland teaches that the parameters may be collected by the client automatically for all data or in response to a request from a server (Col 4, Lines 60-67). Bland also teaches that notifying and requesting permission before collecting data is optional (Col 5, Lines 11-14). This would have been an advantageous addition to the system disclosed by Bryant since collecting the data without notifying the user allows the system to quickly collect the data and customize the content displayed to the user based on the results.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine the performance metric without notifying the user since it would have allowed the parameter to be quickly determined in order to customize the content provided to the user based on the calculated metric.

42. With regard to claims 54, while the system disclosed by Bryant shows substantial features of the claimed invention (discussed above), it fails to disclose (a) a server computing device that is remote from the processing device and coupled in communication with the processing device and with the data center over a network through the network interface, said server computing device executing a server monitoring function in regard to transferring the Web page to the processing device over the network; (b) said server computing device determining a server performance metric related to the transfer of the Web page to the processing device from the server computing device; and (c) said server computing device transmitting said server performance metric to the data center site for processing.

Bland teaches collecting performance metrics for the server related to the transfer of Web pages (Col 3, Line 40 to Col 4, Line 59) and transmitting the metrics to a remote data center site for processing (central server that has management system) (Col 3, Lines 17-22). This would have been an advantageous addition to the system disclosed by Bryant since it allows the data to be centrally collected for analysis.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to collect performance metrics at the server and send them to a remote data center for processing since it would have allowed data for multiple servers to be centrally collected and analyzed.

43. With regard to claim 55, Bryant further discloses combining a performance metric determined by the browser monitoring function executed by the processing device with

the server performance metric determined by the server computing function to determine the correlated performance metric (at least Col 4, Line 65 to Col 5, Line 21 and Col 8, Lines 20-25).

44. With regard to claim 56, while the system disclosed by Bryant shows substantial features of the claimed invention (discussed above), including a caching proxy (proxy server 30) (Par 119, Lines 6-11) disposed between the server computing device and the processing device (Fig 1, 30), it fails to disclose said caching proxy executing a caching proxy monitoring function that determined at least one performance metric related to a performance of the caching proxy.

Bland teaches a method of collecting performance metrics for a server related to Transfer of Web page requests to a client. Bland discloses that several types of metrics are collected at the server (Col 3, Line 41 to Col 4, Line 59). For example, the delay between a client request and a server response is measured to determine the load on the server (Col 3, Lines 47-51). This would have been an advantageous addition to the system disclosed by Bryant since the proxy server can have a significant effect on the overall latency of client requests, and determining information about its performance is crucial to finding bottlenecks in the network.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to executing a monitoring function on the proxy server to determine at least one performance metric related to the performance of the caching proxy, since the proxy server has a significant effect on latency of client requests.

45. Claims 9,20,30,39 and 51 rejected under 35 U.S.C. 103(a) as being unpatentable over Bryant et al. (US 6,411,998) in view of Jia Wang.

46. With regard to claims 9,20,30,39, and 51, while the system disclosed by Bryant shows substantial features of the claimed invention (discussed above), it fails to disclose determining whether the distributed application data (web page) has already been cached at the second site (client), before determining a performance metric.

Wang discloses that browser caches and proxy caches are well-known in the art for maintaining local copies of web documents (Section 4.1.1). Browser caches and proxy caches provide reduced latency for accessing web documents (Section 3). The closer the document is to the requesting client, the faster it will be able to retrieve it. It would be advantageous to determine if the distributed application data being requested by the client has been cached prior to determining a performance metric. If the data has been cached, the latency will be significantly lower than it would have been for uncached data, making the collected data less reliable.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine if the requested data has been cached prior to determining a performance metric since cached data will be retrieved much more quickly and the results will not be an accurate indicator of actual network latency.

Conclusion

47. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

48. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AS
8/2/2007

WILLIAM VAUGHN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100